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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,607	03/21/2005	Jeroen Anton Johan Leijten	260669	4040

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EXAMINER

ELLIS, RICHARD L

ART UNIT	PAPER NUMBER
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2183

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/528,607

Applicant(s)

LEIJTEN ET AL.

Examiner

Richard Ellis

Art Unit

2183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,13,16 and 17 is/are rejected.
- 7) ☒ Claim(s) 3,14,15 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

1. Claims 1-8 and 13-17 remain for examination. Claim 18 is newly presented for examination.
2. The text of those sections of Title 35, US Code not included in this action can be found in a prior Office Action.
3. The drawings are objected to as failing to comply with 37 CFR § 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: IMU, UC₄, UC₀, UC₁, UC₂, UC₃, RF₂, RF₁, RF₀, CN, SQ, FU₂₀, FU₂₁, FU₂₂, DEC, TSC, IRN, ORN. Correction is required. This objection is maintained from the previous office action, paper number 20070517, mailed May 22, 2007.
4. In the response received November 23, 2007 applicant argues:

"The Office Action, at section 2, objects to the drawings because certain reference signs mentioned in the description ... are not identified in the drawings. Applicants previously removed/replaced these identifiers in response to a request in a previously issued Office Action. Applicants have not modified the drawings and instead respectfully request clarification of what requested [sic] since the two previous objections to the drawings appear to be in conflict."
5. Applicants original drawings (received March 21, 2005) contained only boxes labeled with reference characters. The first objection (a part of paper number 20051219 mailed December 21, 2006) was that applicant's submission of drawings labeled only with reference characters failed to meet the requirements for suitable meaningful legends under 37 CFR 1.84(o). Specifically 37 CFR 1.84(o) states:

(o) Legends . Suitable descriptive legends may be used subject to approval by the Office, or may be required by the examiner where necessary for understanding of the drawing. They should contain as few words as possible.

As empty rectangular boxes labeled only with cryptic reference characters provides a drawing with an extremely low understandability, suitable meaningful legends were required. It is noted that at no point does the previous objection state that applicant was to replace the reference characters with legends. The objection was that applicant was to add legends.

Applicant's replacement drawings, received March 19, 2007, deleted the reference characters and substituted for the reference characters suitable meaningful legends. This

change corrected the conditions of the first objection where applicant failed to meet the requirements of 37 CFR 1.84(o). But in deleting the reference characters, applicant created a new failure to meet the requirements of 37 CFR 1.74 which states:

Reference to drawings.

When there are drawings, there shall be a brief description of the several views of the drawings and the detailed description of the invention shall refer to the different views by specifying the numbers of the figures, and to the different parts by use of reference letters or numerals (preferably the latter).

Applicant's specification continues to reference the drawings by reference letters, the original reference letters that applicant chose to delete in responding to the first drawing objection. However, by deleting the reference letters, applicant's drawings fail to provide the reference letters that the specification refers to. Accordingly, the need for a new drawing objection due to applicant's deletion of the reference letters.

To correct this objection applicant has at least three possible choices:

- 1) submit new drawings that contain both suitable meaningful legends and the original reference characters;
- 2) submit new drawings that contain both suitable meaningful legends and new reference numerals, and amend the specification to reference the new reference numerals;
- 3) amend the specification to reference the drawings via the provided legends.

It would seem that the shortest route for applicant to overcome this objection is to submit amended drawings that contain both the original reference letters (utilized as reference letters in the drawings) and the new legends as submitted in the drawing amendment of March 19, 2007. This route avoids the necessity for a quite extensive amendment of the specification.

6. Claims 1-2, 4, 6-8, 13, and 16-17 are rejected under 35 USC § 102(b) as being clearly anticipated by Slavenburg, U.S. Patent 6,122,722.
7. Claims 1-2, 4, 6-8, and 17 are rejected under 35 USC 102(b) as being clearly anticipated by Mehra, U.S. Patent 5,974,537.
8. Claim 5 is rejected under 35 USC § 103 as being unpatentable over Slavenburg, U.S. patent 6,122,722, in view of Hampapuram et al., U.S. Patent 5,787,302.

9. Claim 5 is rejected under 35 USC § 103 as being unpatentable over Mehra, U.S. patent 5,974,537, in view of Hampapuram et al., U.S. Patent 5,787,302.

Slavenburg, Mehra, and Hampapuram were cited as a prior art references in paper number 20070517, mailed May 22, 2007.

10. The rejections are respectfully maintained and incorporated by reference as set forth in the last office action, paper number 20070517, mailed May 22, 2007.

11. Applicant's arguments filed November 23, 2007, have been fully considered but they are not deemed to be persuasive.

12. In the remarks, applicant argues in substance:

- A. That: "Applicants traverse the rejection of **claim 1** because Slavenburg neither discloses nor suggests the recited "plurality of issue slots, wherein *each issue slot comprises a plurality of functional units*. Slavenburg discloses a plurality of issue slots (see, e.g., FIG. 4) and a plurality of functional units (see, e.g., FIG 3). However, in contrast to the claimed invention, Slavenburg discloses a pair of switching matrices 401, 402 for multiplexing the issue slots among various functional units. Slavenburg therefore does not disclose each *issue slot* comprising/including a plurality of functional units.

The Office Action, in response to Applicants' previous arguments, states:

"in Slavenburg's invention (fig. 4) it is seen that each "issue slog" (1 ... 3 in element 410) can "comprise" (contain) an instruction for any execution unit of fig. 3. Accordingly, each "issue slot" "comprises" "multiple functional units" because each issue slog of Slavenburg can issue instructions to more than a single functional unit as in the prior art."

Applicant's submit that the above-cited portion of the Office Action evidences a misinterpretation of the corresponding element of claim 1. Rather than recite an ability to couple an issue slot's instruction to any of a plurality of shared execution units (disclosed in Slavenburg), Applicants' disclosed (see, e.g., FIG. 2) and claimed "issue slot" structures each comprise (contain) a plurality of functional units. Slavenburg discloses selectively associating/connecting shared functional units to a set of issue slots that do not, themselves, comprise the functional units. For at least this reason, Slavenburg does not anticipate the invention recited in claim 1." (emphasis in original)

This is not found persuasive because applicant is attempting to read into the claim limitations from their specification that are not set forth within the claim language itself. Claimed subject matter, not the specification, is the measure of invention. Limitations in the specification cannot be read into the claims for the purpose of avoiding the prior art. *In re Self*, 213 USPQ 1,5 (CCPA 1982); *In re Priest*, 199 USPQ 11,15 (CCPA 1978).

"It is the claims that measure the invention." *SRI Int'l v. Matshshita Elec. Corp.*, 775 F.2d 1107, 1121, 227 USPQ 577, 585 (Fed. Cir. 1985) (en banc).

"The invention disclosed in Hiniker's written description may be outstanding in its field, but the name of the game is the claim." *In re Hiniker Co.*, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998).

"limitations appearing in the specification will not be read into the claims, and ... interpreting what is meant by a word in a claim 'is not to be confused with adding an extraneous limitation appearing in the specification, which is improper'." *Intervet Am., v. Kee-Vet Labs.*, 12 USPQ2d 1474, 1476 (Fed. Cir. 1989)(citation omitted).

"it is entirely proper to use the specification to interpret what the patentee meant by a word or phrase in the claim, ... this is not to be confused with adding an extraneous limitation appearing in the specification, which is improper. By 'extraneous,' we mean a limitation read into a claim from the specification wholly apart from any need to interpret ... particular words or phrases in the claim." *In re Paulsen*, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994) (citation omitted).

Applicant is attempting to read into the term "comprising" within the claim language the limitation of "physically containing". Such reading of this limitation into the claim language is "wholly apart from any need to interpret ... particular words or phrases in the claim." The term "comprising" is not limited to "physical containment" but also covers "logical containment" such as that disclosed by Slavenburg. By choosing to recite only "comprising" without further language to limit the scope of "comprising", applicant's claims encircle not only their invention where the functional units are physically contained within the issue slots, but also further encircle the cited prior art where the functional units are logically contained within the issue slots. Rather than attempting to argue an improper inclusion of limitations from their specification into the claims, applicant's should instead amend their claim language so that it is not so broad as to encircle a system where issue slots logically contain functional units by a selective associating/connecting system.

Furthermore, it has been well settled that the term "comprising" when utilized in a claim is open ended and does not limit a claim to only the recited elements:

MPEP 2111.03 [R-3] Transitional Phrases

The transitional phrases "comprising", "consisting essentially of" and "consisting of" define the scope of a claim with respect to what unrecited additional components or steps, if any, are excluded from the scope of the claim.

The transitional term "comprising", which is synonymous with "including,"

"containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., > *Mars Inc. v. H.J. Heinz Co.*, 377 F.3d 1369, 1376, 71 USPQ2d 1837, 1843 (Fed. Cir. 2004) ("like the term comprising," the terms containing' and mixture' are open-ended."). < *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d 1364, 1368, 66 USPQ2d 1631, 1634 (Fed. Cir. 2003) ("The transition comprising' in a method claim indicates that the claim is open-ended and allows for additional steps."); *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997) ("Comprising" is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim.); *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986); *In re Baxter*, 656 F.2d 679, 686, 210 USPQ 795, 803 (CCPA 1981); *Ex parte Davis*, 80 USPQ 448, 450 (Bd. App. 1948) ("comprising" leaves "the claim open for the inclusion of unspecified ingredients even in major amounts"). > *In Gillette Co. v. Energizer Holdings Inc.*, 405 F.3d 1367, 1371-73, 74 USPQ2d 1586, 1589-91 (Fed. Cir. 2005), the court held that a claim to "a safety razor blade unit comprising a guard, a cap, and a group of first, second, and third blades" encompasses razors with more than three blades because the transitional phrase "comprising" in the preamble and the phrase "group of" are presumptively open-ended. "The word comprising' transitioning from the preamble to the body signals that the entire claim is presumptively open-ended." *Id.* In contrast, the court noted the phrase "group consisting of" is a closed term, which is often used in claim drafting to signal a "Markush group" that is by its nature closed. *Id.* The court also emphasized that reference to "first," "second," and "third" blades in the claim was not used to show a serial or numerical limitation but instead was used to distinguish or identify the various members of the group. *Id.* <

13. It is exactly because of this defined "open-endedness" of the term "comprising" that it is broad enough to encircle both applicant's invention of physical containment as well as Slavenburg's invention of logical containment. The term "comprising" does not exclude Slavenburg's containment because Slavenburg's containment utilizes additional circuitry to allow that containment to occur. Rather the term "comprising" encircles Slavenburg's invention because it allows Slavenburg to have the additional hardware necessary to perform a logical containment and still read upon applicant's claim language which simply states an unmodified "comprising". In order to overcome the rejection in view of Slavenburg, applicant's must amend their claim language to place limitations upon the open-ended breadth of the term "comprising" if they wish their unique definition of "comprising" to have weight in overcoming Slavenburg.

"The invention disclosed in Hiniker's written description may be outstanding in its field, but the name of the game is the claim." *In re Hiniker Co.*, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998).

14. That: "Applicants furthermore submit that Slavenburg neither discloses nor suggests

claim 1's recited "dedicated issue slot arranged for loading an immediate value in dependence upon a dedicated instruction comprising the immediate value." The Office Action asserts that the aforementioned claim element is disclosed by the CONST Type Slot 430 and CONST unit. However, the CONST unit does not have an immediate value. Instead, the CONST unit loads a binary value which is a concatenation of the opcode fields of the issue slot in which a CO unit operation was issued. Applicants submit that an opcode is an *instruction*, not data, and therefore would not fall within Applicants' defined/claimed "immediate value." (emphasis in original)

This is not found persuasive because applicants have misinterpreted the teachings of Slavenburg. The portion of Slavenburg's disclosure to which applicants arguments allude is col. 6 lines 46-52:

"In FIG. 7, the CONST unit is special. It is really a dummy unit. It generates, as result output, the binary value that is the concatenation of the opcode, Rsrc1 and Rsrc2 fields of the issue slot in which a CO unit operation was issued."

Applicant's attention is drawn to the fact that Slavenburg states that the CONST unit generates a value that is a concatenation of several "fields of the issue slot". Slavenburg does not state than an "opcode" is concatenated, but merely that the contents of the "opcode field" is part of the concatenated value output by the unit. This is seen graphically in fig. 4 where a CONST issue slot instruction is diagramed as item 430. Note how the "CONSTANT FIELD" which forms part of instruction 430, and is data for instruction 430 exists in the same spatial location as the "OPC", "Rsrc1", and "Rsrc2" fields of "CONTROL TYPE SLOT" instruction 420 and "ALU TYPE SLOT" instruction 440. Slavenburg is simply indicating that for a "CONST TYPE SLOT" instruction, the immediate data value (the "CONSTANT FIELD" of instruction 430) exists at the same bit positions as the "OPC" (opcode), "Rsrc1" (Register Source 1), and "Rsrc2" (Register source 2) fields of the other instructions (420, 440, 450, 460, 470). Slavenburg is merely indicating where within the instruction word the constant value is stored (in this case in the same location as the opcode and source register specifiers of the other non-constant instructions). Accordingly, Slavenburg's constant (ass seen in fig. 4) is indeed data, and does fit Applicant's defined/claimed "immediate value".

15. That: "Applicants traverse the rejection of **claim 2** for at least the further reason that Slavenburg does not disclose a processing apparatus that includes a *single functional unit arranged for only executing the dedicated instruction* when read in combination with the elements recited in claim 1." (emphasis in original)

This is not found persuasive because the recitation of a single functional unit for executing the dedicated instruction refers to the dedicated instruction of the last clause of claim 1, which such dedicated instruction is for loading an immediate value. As Slavenburg teaches a dedicated instruction for loading an immediate value (CONST TYPE SLOT instruction 430 of fig. 4) and Slavenburg teaches a dedicated functional unit (CONST UNIT of fig. 3, which only executes CONST instructions) Slavenburg has indeed taught a single functional unit arranged for only executing the dedicated instruction as claimed.

16. That: "Applicants traverse the rejection of **claim 1** because Mehra neither discloses nor suggests the recited "plurality of issue slots, wherein *each issue slot comprises a plurality of functional units*. The Office Action does not dispute that Mehra does NOT disclose each issue slot contains/includes a plurality of functional units. Instead, the Office Action has redefined Applicants' claimed "comprises" to mean "connects to" (a plurality of functional units). Applicants submit that such interpretation is contrary to Applicants' disclosure and unequivocal intention with regard to the presently claimed invention.

This is not found persuasive because as detailed extensively above in regards to the Slavenburg reference, the term comprising is very broad and encircles any and all forms of "comprising". Applicant's wish the claim language to be read narrowly to include only one particular form of "comprising" without inserting corresponding claim language to make that intention and desire clear from the claim language itself. As it is the claim which defines the invention, Applicant's "unequivocal intention" is simply that, their "intention" until such time as they insert that "intention" specifically into the claim language.

"The invention disclosed in Hiniker's written description may be outstanding in its field, but the name of the game is the claim." *In re Hiniker Co.*, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998).

If applicants true desire is to have the claim language read narrowly as they state in their arguments is their "unequivocal intention" then why not simply make that "unequivocal intention" clear in the claim language? If indeed this is their intention, there should be no difficulty with narrowing the claim language to only encircle just this intention and nothing more.

17. That: "Applicants furthermore submit that Mehra neither discloses nor suggests claim 1's recited "dedicated issue slot arranged for loading an immediate value in dependence

upon a dedicated instruction comprising the immediate value." The Office Action now asserts that the CONST unit (610) in Mehra corresponds to the aforementioned claim element. Mehra identifies the element 610 as an "operational parcel" which is not an "issue slot" as recited in claim 1. Thus, none of the ISSUE SLOTS (521-523) can be considered to be the claimed *dedicated* issue slot arranged for loading an immediate value in dependence upon a *dedicated* instruction comprising the immediate value."

This is not found persuasive because the Mehra reference indeed discloses the claim language as it is presently written. The meaning of "dedicated" is:

"**dedicated** ... **1** : devoted to a cause, ideal, or purpose ... **2** : given over to a particular purpose ..." Webster's Ninth New Collegiate Dictionary, Merriam-Webster Inc., 1990

When one looks at fig. 5 of we see that each issue slot can contain at most one "operational parcel" from fig. 6. Therefore, when issue slot 521 contains a CONSTANT parcel 610 it has been "given over to a particular purpose" (providing a constant value) and is thus "dedicated". Applicant's claim language places no restriction upon the scope or breadth of "dedicated" within the claim language such that the claim language requires "always dedicated" or "permanently dedicated" as applicant appears to be arguing. If such is applicant's intent, then applicant should amend the claim language to make that intent clear within the claim language.

18. That: "Applicants traverse the rejection of **claim 2** for at least the further reason that Mehra does not disclose a processing apparatus that includes a *single functional unit arranged for only executing the dedicated instruction* when read in combination with the elements recited in claim 1."

This is not found persuasive because when one looks to fig. 5 of Mehra, one sees that there is only a single CONST unit 531 shown in the drawings. Therefore, Mehra has disclosed a single functional unit (unit 531) which is arranged for only executing the dedicated instruction (610 of fig. 6, see also col. 8 lines 17-28).

19. Claim 3 is objected to as being dependent upon a rejected base claim, but would render the base claim allowable if bodily incorporated into the base claim such that the new base claim included all of the original limitations of the base claim, any intervening claims, and the objected claim. Claims 14-15 and 18 are objected to due to their dependence from claim 3.

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a). The practice of automatically extending the

shortened statutory period an additional month upon the filing of a timely first response to a final rejection has been discontinued by the Office. See 1021 TMOG 35.


A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 CFR § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

21. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Richard Ellis whose telephone number is (571) 272-4165. The Examiner can normally be reached on Monday through Thursday from 7am to 5pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Eddie Chan, can be reached on (571) 272-4162. The fax phone number for the USPTO is: (703)872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Richard Ellis
January 23, 2008



RICHARD L. ELLIS
PRIMARY EXAMINER